

<b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>	Docket Number (optional) 076775-011002	Application Number 10/598,080
	Applicant(s) Gall et al.	
	Filing Date 09/07/2006	Group Art Unit 3733

U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	1	4,950,258	Aug. 21, 1990	Kawai et al.			
	2	5,163,952	Nov. 17, 1992	Froix, M.			
	3	5,358,511	Oct. 25, 1994	Gatturna et al.			
	4	5,601,557	Feb. 11, 1997	Hayhurst, J.			
	5	5,964,744	Oct. 12, 1999	Balbierz			
	6	6,160,084	Dec. 12, 2000	Langer et al.			
	7	6,281,262	Aug. 28, 2001	Shikinami, Y.			
	8	6,388,043	May 14, 2002	Langer et al.			
	9	6,500,204	Dec. 31, 2002	Igaki, K.			
	10	6,514,237	Feb. 4, 2003	Maseda			
	11	6,637,995	Oct. 28, 2003	White			
	12	6,702,976	Mar. 4, 2004	Sokolowski			
	13	6,720,402	Apr. 13, 2004	Langer et al.			
	14	7,151,157	Dec. 19, 2006	Mather, P			
	15	7,291,154	Nov. 6, 2007	Maitland et al.			
	16	7,303,642	Dec. 4, 2007	Topolkaraev			
	17	7,632,303	Dec. 15, 2009	Stalker et al.			
	18	7,651,528	Jan. 26, 2010	Montgomery et al.			

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	19	2002/0062547	May 30, 2002	Chiodo et al.			
	20	2003/0055198	Mar. 20, 2003	Langer et al.			
	21	2003/0191276	Oct. 9, 2003	Lendlein et al.			
	22	2004/0014929	Jan. 22, 2004	Lendlein et al.			
	23	2004/0024143	Feb. 5, 2004	Lendlein et al.			
	24	2004/0068262	Apr. 8, 2004	Lemos et al.			
	25	2004/0098110	May 20, 2004	Williams et al.			
	26	2004/0110285	Jun. 10, 2004	Lendlein et al.			
	27	2004/0117955	Jun. 24, 2004	Barvosa-Carter et al.			
	28	2004/0260298	Dec. 23, 2004	Kaiser et al.			
	29	2005/0033295	Feb. 10, 2005	Wisnewski			
	30	2005/0090822	Apr. 28, 2005	DiPoto			
	31	2005/0244353	Nov. 3, 2005	Lendlein et al.			
	32	2006/0009785	Jan. 12, 2006	Maitland et al.			
	33	2006/0036045	Feb. 16, 2006	Wilson et al.			
	34	2006/0041089	Feb. 23, 2006	Mather et al.			
	35	2008/0141736	Jun. 19, 2008	Jones et al.			
	36	2009/0005777	Jan. 1, 2009	Houser et al.			

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**U.S. PATENT DOCUMENTS**

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	37	2009/0222025	Sep. 3, 2009	Catanese III et al.			
	38	2009/0248141	Oct. 1, 2009	Shandas			

**FOREIGN PATENT DOCUMENTS**

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
	39	EP 0368274	05-16-1990	Europe				
	40	EP 0668055	08-23-1995	Europe				
	41	EP 1481640	12-01-2004	Europe				
	42	EP 1607048	12-21-2005	Europe				
	43	JP 2003145564 (abstract only in English)	05-20-2003	Japan				
	44	WO 92/13490	08-20-1992	WIPO				
	45	WO 96/11721	04-25-1996	WIPO				
	46	WO 2004/014217	02-19-2004	WIPO				
	47	WO 2007/038429	04-05-2007	WIPO				
	48	WO 2007/089843	08-09-2007	WIPO				

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**OTHER DOCUMENTS**    *(Including Author, Title, Date, Pertinent Pages, Etc.)*

49	Copy of International Search Report and Written Opinion in PCT Application No. PCT/US06/15207 (Aug. 18, 2006).
50	Copy of International Search Report and Written Opinion in PCT Application No. PCT/US08/058249 (Jul. 22, 2008).
51	Copy of International Search Report and Written Opinion in PCT Application No. PCT/US08/071066 (Jul. 24, 2009).
52	Bellin et al., <i>Polymeric triple-shape materials</i> , 103 Proc. Nat'l Acad. Sci. U.S.A. (PNAS), 18043-18047 (2006).
53	Dianii et al., <i>Finite Strain 3D Thermoviscoelastic Constitutive Model for Shape Memory Polymers</i> , 42 Polymer Engineering and Science, 486-492 (2006).
54	El Feninat et al., <i>Shape Memory Materials for Biomedical Applications</i> , Advanced Engineering Materials, 4, No. 3, pp. 91-104 (2007).
55	Franzesi, <i>Design of a novel anterior cruciate ligament prosthesis</i> , Massachusetts Institute of Technology Thesis (2006), <a href="http://hdl.handle.net/1721.1/36693">http://hdl.handle.net/1721.1/36693</a> .
56	Gall et al., <i>Thermomechanics of the Shape Memory Effect in Polymers for Biomedical Applications</i> , Wiley InterScience, pp. 339-348 (2005).
57	Gall et al., <i>Shape-Memory Polymers for Microelectromechanical Systems</i> , Journal of Microelectromechanical Systems, Vol. 13, No. 3, pp. 472-483 (June 2004).
58	Gall et al., <i>Shape Memory Polymer Nanocomposites</i> , Acta Materialia 50, pp. 5115-5126 (2002).
59	Jeon et al., <i>Shape Memory and Nanostructure in Poly(Norbornyl-POSS) Copolymers</i> , Polymers International, 49, pp. 453-457 (2000).
60	Langer et al., <i>Designing Materials for Biology and Medicine</i> , Nature, Vol. 428, pp. 487-492 (April 1, 2004).
61	Lendlein et al., <i>Shape-memory polymers as stimuli-sensitive implant materials</i> , 32 Clinical Hemorheology and Microcirculation 105-116 (2005).
62	Lendlein et al., <i>Light-Induced Shape-Memory Polymers</i> , Nature, Vol. 434, pp. 879-882 (April 14, 2005).
66	Lendlein et al., <i>Biodegradable, Elastic Shape-Memory Polymers for Potential Biomedical Applications</i> , Science, Vol.. 296, pp. 1673-1676 (May 31, 2002).
67	Lendlein et al., <i>AB-Polymer Networks Based on Oligo(Varepsilon-Caprolactone) Segments Showing Shape-Memory Properties</i> , Proceedings of the National Academy of Sciences of the United States of America, Vol. 98, No. 3, pp. 842-847 (January 30, 2001).

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**Group Art Unit**  
 3733

**OTHER DOCUMENTS** *(Including Author, Title, Date, Pertinent Pages, Etc.)*

68	Lin et al., <i>Study on Shape-Memory Behavior of Polyether-Based Polyurethanes. I. Influence of the Hard-Segment Content</i> , Journal of Applied Polymer Science, Vol. 69, pp. 1563-1574 (1998).
69	Lin et al., <i>Study on Shape-Memory Behavior of Polyether-Based Polyurethanes. II. Influence of the Soft-Segment Molecular Weight</i> , Journal of Applied Polymer Science, Vol. 69, pp. 1575-1586 (1998).
70	Liu et al., <i>Thermomechanics of Shape Memory Polymers: Uniaxial Experiments and Constitutive Modeling</i> , International Journal of Plasticity, Vol. 22, pp. 279-313 (2006).
71	Liu et al., <i>Thermomechanical Recovery Couplings of Shape memory Polymers in Flexure</i> , Smart Materials and Structures, Vol. 12, pp. 947-954 (2003).
72	Liu et al., <i>Chemically Cross-Linked Polycyclooctene7/28/2008 Synthesis, Characterization, and Shape Memory Behavior</i> , Macromolecules, Vol. 35, No. 27, pp. 9868-9874 (2002).
73	Maitland et al., <i>Photothermal Properties of Shape Memory Polymer Micro-Actuators for Treating Stroke</i> , Lasers in Surgery and Medicine, Vol. 30, pp. 1-11 (2002).
74	Metcalfe et al., <i>Cold Hibernated Elastic Memory Foams for Endovascular Interventions</i> , Biomaterials, Vol. 24, pp. 491-497 (2003).
75	Metzger et al., <i>Mechanical Properties of Mechanical Actuator for Treating Ischemic Stroke</i> , Biomedical Microdevices, Vol. 4, No. 2, pp. 89-96 (2002).
76	Rupp et al., <i>Resulting Tensile Forces in the Human Bone-Patellar Tendon-Bone Graft: Direct Force Measurement in Vitro</i> , Arthroscopy: The Journal of Arthroscopic and Related Surgery, Vol. 15, No. 2, pp. 179-184 (March 1999).
77	Smith, T., <i>Strength of Elastomers--A Perspective</i> , Polymer Engineering and Science, Vol. 17, No. 3, pp. 129-143 (March 1977).
78	Smith, T., <i>Time and Temperature Dependence of the Ultimate Properties of an SBR Rubber at Constant Elongations</i> , Journal of Applied Physics, Vol. 31, No. 11, pp. 1892-1898 (November 1960).
79	Smith, T., <i>Ultimate Tensile Properties of Elastomers. I. Characterization by a Time and Temperature Independent Failure Envelope</i> , Journal of Polymer Science, Part A, Vol. 1, No. 12, pp. 3597-3616 (December 1963).
80	Sokolowski et al., <i>Cold Hibernated Elastic Memory (CHEM) self-deployable structures</i> , SPIE '99 International Symposium on Smart Structures and Materials (1999).
81	Sokolowski et al., <i>Medical Applications of shape memory polymers</i> , 2 Biomedical Materials S23-S27 (2007).
82	Takahashi et al., <i>Structure and Properties of Shape-Memory Polyurethane Block Copolymers</i> , Journal of Applied Polymer Science, Vol. 60, pp. 1061-1069 (1996).

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3733**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

83	Tobushi et al., <i>Thermomechanical Constitutive Modeling in Shape Memory Polymer of Polyurethane Series</i> , Journal of Intelligent Material Systems and Structures, Vol. 8, pp. 711-718 (August 1997).
84	Tobushi et al., <i>Thermomechanical Properties in a Thin Film of Shape Memory Polymer of Polyurethane Series</i> , Smart Matter Structures, Vol. 5, pp. 483-491 (1996).
85	Wache et al., <i>Development of a Polymer Stent with Shape Memory Effect as a Drug Delivery System</i> , Journal of Materials Science: Materials in Medicine, Vol. 14, pp. 109-112 (2003).
86	Zhu et al., <i>Shape-Memory Effects of Radiation Crosslinked Poly(<math>\epsilon</math>-Caprolactone)</i> , Journal of Applied Polymer Science, Vol. 90, pp. 1589-1595 (2005).

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